



September 13, 2018

Dale Rupp  
AK Steel Middletown  
1801 Crawford Street  
Middletown, OH 45044

**Re: AK Steel Middletown  
Notice of Violation (NOV)  
Air Permit  
Butler County  
1409010006**

**Southwest Ohio Air Quality Agency**

**Subject: Notice of Violation**

Dear Mr. Rupp:

On May 8, May 23, and May 24, 2018, U.S. Environmental Protection Agency ("U.S. EPA") performed inspections of AK Steel Corporation's No. 2 Coke Oven Battery ("Battery"), emissions unit B918, in Middletown, Ohio. On August 7, 2018, U.S. EPA provided a summary of the inspection to the Southwest Ohio Air Quality Agency ("SWOAQA"). Ohio EPA and SWOAQA recently finished a review of the report as identified in Findings 1-3 below.

During 2018, AK Steel Corporation submitted notifications of malfunctions of the No. 3 Blast Furnace, emissions unit P925. The malfunction reports detailed 27 burden slip events as identified in Finding 4 below.

On July 30, 2018, AK Steel Corporation submitted the Semi-annual Compliance Report (First Half of 2018) for 40 CFR Part 63, Subpart CCCCC. On August 24, 2018, SWOAQA completed a review of the report as identified in Finding 5 below.

The goal of the observations and review of the reports was to determine the facility's compliance with Ohio's Division of Air Pollution Control's laws as found in Chapter 3704 of the Ohio Revised Code (ORC) and Chapter 3745 of the Ohio Administrative Code (OAC) and the terms and conditions of AK Steel Corporation's Title V PTO P0105157 issued on August 10, 2017.

**Findings**

SWOAQA observed or was provided information for the following violations of Ohio's ORC Chapter 3704, OAC Chapter 3745, and AK Steel Corporation's permit terms and conditions. In order to bring your facility into compliance, we recommend promptly addressing these violations within 30 days of your receipt of this letter.

1. Ohio Revised Code (ORC) 3704.05(C): *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

OAC rule 3745-17-07(B)(2)(d)(ii) *"At no time shall there be visible particulate emissions from more than ten percent of the oven doors."*

OAC rule 3745-17-08(B) *"The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM)."*

Permit terms and conditions: AK Steel Corporation, Facility ID #1409010006, Ohio EPA Title V permit number P0105157 effective October 10, 2017 for emissions unit B918.

- (a) On May 8, 2018 U.S. EPA inspectors observed visible fugitive particulate emissions at AK Steel Corporation of the Coke Battery (emissions unit B918) leaking from 24 out of 152 oven doors at a rate of 15.8%. On May 23, U.S. EPA inspectors observed visible fugitive particulate emissions leaking from 16 out of 152 oven doors, at a rate of 10.5%. This is greater than the ten percent requirement from the permit and rules listed above.

- (b) *Requested action:*

On May 29, 2018, SWOAQA sent a NOV for a similar violation for readings taken by SWOAQA personnel. On June 19, 2018 AK Steel Corporation agreed to Interim Director's Findings and Orders that include Orders to address the above stated violations. No additional actions are requested at this time.

2. Ohio Revised Code (ORC) 3704.05(C): *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

OAC rule 3745-17-07(B)(2)(b) *"At no time shall there be visible particulate emissions from more than ten percent of the offtake piping."*

OAC rule 3745-17-08(B) *"The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM)."*

Permit terms and conditions: AK Steel Corporation, Facility ID #1409010006, Ohio EPA Title V permit number P0105157 effective October 10, 2017 for emissions unit B918.

- (a) On May 8, 2018, U.S. EPA observed visible fugitive particulate emissions at AK Steel Corporation of the Coke Battery (emissions unit B918) leaking from 21 of the 152 offtake piping, at a rate of 13.8%. On May 23, 2018, U.S. EPA inspectors observed visible fugitive particulate emissions leaking from 25 out of 152 offtake piping, at a rate of 16.4%. This is greater than the ten percent requirement from the permit and rules listed above.

- (b) *Requested action:*

On June 19, 2018 AK Steel Corporation agreed to Interim Director's Findings and Orders that include Orders to submit documentation demonstrating compliance with the

above stated violations. Within 30 days of receipt of this letter, AK Steel Corporation shall submit a compliance plan to SWOAQA which will address how the facility addressed the exceedances identified above. Please include the specific action items AK Steel Corporation has taken and will take to maintain compliance.

3. Ohio Revised Code (ORC) 3704.05(C): *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

OAC rule 3745-17-07(B)(2)(a) *"There shall be no visible particulate emissions from any charging operations except for a period of time not to exceed one hundred twenty-five seconds during any five consecutive charges."*

OAC rule 3745-17-08(B) *"The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM)."*

Permit terms and conditions: AK Steel Corporation, Facility ID #1409010006, Ohio EPA Title V permit number P0105157 effective October 10, 2017 for emissions unit B918.

- (a) On May 24, 2018, U.S. EPA observed visible fugitive particulate emissions at AK Steel Corporation of the Coke Battery (emissions unit B918) from the charging operation for 168 seconds from 12:51 PM to 2:17 PM. This is greater than the one hundred twenty-five seconds during any five consecutive charges from the permit and rules listed above.

(b) *Requested action:*

On June 19, 2018 AK Steel Corporation agreed to Interim Director's Findings and Orders that include Orders to submit documentation demonstrating compliance with the above stated violations. Within 30 days of receipt of this letter, AK Steel Corporation shall submit a compliance plan to SWOAQA which will address how the facility addressed the exceedances identified above. Please include the specific action items AK Steel Corporation has taken and will take to maintain compliance.

4. Ohio Revised Code (ORC) 3704.05(C): *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

OAC rule 3745-17-11 *"Particulate emissions from all stacks associated with this emissions unit shall not exceed 73.8 pounds per hour."*

Permit terms and conditions: AK Steel Corporation, Facility ID #1409010006, Ohio EPA Title V permit number P0105157 effective October 10, 2017 for emissions unit P925.

- (a) From March 10, 2018 until August 16, 2018, AK Steel reported 27 burden slips at the blast furnace (emissions Unit P925) that each exceeded the particulate emissions limit of 73.8 pounds per hour.

(b) *Requested action:*

AK Steel Corporation agreed to a Consent Order dated December 4, 2017 that states the facility shall analyze the root cause of any burden slips for the blast furnace when there are more than four burden slips in any rolling 30-day period that exceeds the 73.8 pounds of particulate emissions per hour limitation. On July 30, 2018, AK Steel Corporation submitted a second quarter report identifying the results of the root cause investigations. AK Steel Corporation stated the primary reason for burden slips was the introduction of a new iron ore pellet used on a trial basis. The trial was put on hold and stock depleted by July 31, 2018. Within 30 days of receipt of this letter, please submit an updated Preventative Maintenance and Malfunction Abatement Plan for P925 highlighting the changes made as the result of the July 30, 2018 report.

5. Ohio Revised Code (ORC) 3704.05(C): *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

40 CFR Part 63, Subpart CCCCC, "The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L) in the quenching water."

Permit terms and conditions: AK Steel Corporation, Facility ID #1409010006, Ohio EPA Title V permit number P0105157 effective October 10, 2017 for emissions unit P043.

- (a) On July 30, 2018, AK Steel Corporation reported the TDS content of the water used to quench hot coke at emissions unit P043 Wilputte Quench Tower was 1,130 mg/L versus the limit of 1,100 mg/L as specified in 40 CFR 63.7295(a)(1)(i) and 63.7333(f).

- (b) *Requested action:*

AK Steel Corporation stated the root cause of the violation was a failure to clam out the solids from the quench tower water catch basin. The contractor has been retrained and the procedure has been revised to have Coke Plant management sign-off on completion of the activities each week. No further action is requested at this time.

## **Conclusion**

SWOAQA requests that AK Steel Corporation promptly undertake the necessary measures to return to compliance with Ohio's environmental laws and regulations. Within 30 days of receipt of this letter, please provide, to SWOAQA, the documentation requested above.

Failure to comply with Chapter 3704 of the Ohio Revised Code and rules promulgated thereunder may result in an administrative or civil penalty. If circumstances delay resolution of violations, AK Steel Corporation is requested to submit written correspondence describing the steps that will be taken by date certain to attain compliance.

Please note that the submission of any requested information to respond to this letter does not constitute waiver of Ohio EPA's or SWOAQA's authority to seek administrative or civil penalties as provided in Section 3704.06 of the Ohio Revised Code.

Thank you for your time and cooperation and if you have any questions, please do not hesitate to contact me by phone at (513) 946-7738 or by e-mail at [kerri.castlen@hamilton-co.org](mailto:kerri.castlen@hamilton-co.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Kerri Castlen". The signature is fluid and cursive, with the first name "Kerri" being more prominent than the last name "Castlen".

Kerri Castlen

Permits and Enforcement Assistant Section Manager

ec: John Paulian/James Kavalec, DAPC/CO  
Brian Dickens, U.S. EPA Region V  
Chris Potts/ Pat Gallo, AK Steel